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ABSTRACT

"Professional development" has become the panacea of 1990s reform efforts. However, understanding of the breadth, depth, and nature of teacher learning experiences remains limited. Using an embedded case study design, this paper examines the factors that motivate teachers to engage in development activities, the ways they experience professional learning, and most importantly, how work context influences their learning experiences. Interviews were held with 45 teachers and 7 school administrators in an urban high school. It is suggested, that while teachers view professional development broadly, a complex nesting of work contexts limits the types of learning activities and the knowledge available to them. Steps that school leaders and education policy makers can take to broaden and enhance professional learning opportunities are discussed. It will be important to pay more attention to: (1) the multiple contexts that define teacher work; (2) the types of teacher learning activities that are privileged in different contexts; and (3) the consequences that engaging in certain learning activities have on the types of knowledge acquired and used in practice. An appendix describes the teacher and administrator interview protocols. (Contains 1 figure, 1 table, and 36 references.) (SLD)

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A qualitative analysis of teacher professional learning and teacher work in urban high schools

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Abstract

"Professional development" has become the panacea of 1990s reform efforts. However, our understanding of the breadth, depth, and nature of teacher learning experiences remains limited. Using an embedded case study design, this article examines the factors that motivate teachers to engage in development activities, the ways they experience professional learning, and most importantly, how work context influences their learning experiences. The author suggests that while teachers view professional development broadly, a complex nesting of work contexts limits the types of learning activities, and hence knowledge, available to them. Finally, steps that school leaders and education policy makers can take to broaden and enhance professional learning opportunities are discussed.

A qualitative analysis of teacher professional learning

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In 1993, Little stated that professional development "is where the tension between institutional imperatives and individual prerogatives exist, between the conditions necessary to attempt systemic change and the conditions that engage individual teachers in their work" (Little 1993, p. 141). Her remarks underscore the burgeoning importance of professional development as a vehicle for educational reform evidenced in recent national studies (Corcoran, 1995; Houghton & Goren, 1995; NCTAF, 1996; NFIE, 1996). At their core, these studies emphasize the need to (1) integrate professional development into schools through sustained support at the state, district, and local levels; (2) link individual and organizational improvement; and (3) develop organizational contexts that support continuous professional learning. To this end, McLaughlin and Oberman (1996) described a symbiotic relationship between teacher learning and education reform; a relationship where successful reform relies on continuous teacher learning, and effective teacher learning relies on new approaches to teacher professional development. However, for new professional development approaches such as teacher collaboratives, subject matter associations, professional development schools, and teacher networks to reach their full potential, the nexus between learning and work must be thoroughly explored (Darling Hammond & McLaughlin, 1995; Lieberman, 1995; Little, 1993; McLaughlin, 1991).

In spite of calls for new approaches to teacher professional development, our knowledge of the influence of work context on teacher learning is limited. As Lieberman (1995) notes we must "deepen our understanding of how teachers acquire the experience that encourages them to grow and change in the context of school reform" (p. 592). Thus, the purpose of this study—to

examine the relationship between teacher work and professional development—is significant for at least three reasons. First, it furthers our understanding of teacher perspectives on their own professional development. Second, the influence of teacher work on the acquisition and use of knowledge are explored. And third, the relationship between teacher professional development and teacher work is studied in a highly demanding setting—urban high schools. Specifically, the following questions guide this study: (1) what motivates teachers to seek professional development; (2) what are the ways teachers experience their own professional development; and (3) how does teacher work context influence professional development?

Background

Teacher Learning and Work

Research suggests that workplace factors such as school culture and structure can influence teachers' sense of efficacy and professional motivation (Bredeson, Fruth, Kasten, 1983; Johnson, 1990; Lortie, 1975; Rosenholtz, 1989; Rosenholtz & Smylie, 1984; Seashore-Louis & Miles, 1990), although the influences are not entirely understood (Smylie, 1988). Rosenholtz and Smylie (1984) challenged assumptions inherent in 1980s educational reforms that suggested teachers were most responsive to extrinsic rewards. In fact, primary among reasons for teacher attrition were those conditions that directly affected *student* learning (Bredeson, et al. 1983). That is, increasing teacher effectiveness with students through opportunities for professional growth was the most compelling reason for teachers to remain in teaching (Rosenholtz & Smylie, 1984). Furthermore, factors associated with conditions, such as isolation and opportunities for informal interaction, may have far greater potential as levers to improve schools by attracting and keeping excellent teachers than financial incentives. In her study, Johnson (1990) attempted to identify "work structures, standards, norms and practices

[that] enable and encourage teachers to do their best work (p. xvii)." While no single aspect of teacher work life could attract and retain good teachers, "investing in teacher learning" emerged as a major theme. However, Johnson was puzzled by teachers' lack of initiative to "set their own career development milestones and define their own progress" (p. 250).

Emerging Notions of Professional Development

In spite of unsteady support, teachers are being asked to teach in ways that promote critical thinking and problem solving skills and that require deeper subject matter knowledge. For example, reforms such as curriculum standards, teacher performance standards, and site-based governance layer additional demands while also requiring change in current practice (Corcoran, 1995). Discussion and debate surrounding new professional development models have begun to result in a growing consensus of guiding principles for teacher learning. Inherent in these principles is the notion that professional development must "cease to be an afterthought to systemic reform" if state and local reform efforts are to succeed (Houghton & Goren, p. 23). Emerging guidelines for professional development include (1) on-going professional learning that is tied to new standards for curriculum, assessment, and student performance; (2) professional development connected to teacher work; (3) school communities that foster shared learning; and (4) professional development that is integrated into the school schedule (Houghton & Goren, 1995; see also Corcoran, 1995; Darling-Hammond & McLaughlin, 1995). Achieving this expanded notion of professional development will require (1) examining institutional arrangements required to promote on-going teacher learning (Darling-Hammond & McLaughlin, 1995; Lieberman, 1995; McLaughlin, 1991); (2) assessing existing policies to determine their compatibility with new visions of teacher learning (Darling-Hammond & McLaughlin, 1995);

and (3) acknowledging and understanding teacher perspectives on their own professional growth and the role of professional development in addressing problems of practice (Lieberman, 1995).

Urban Settings: A Unique Environment

The lack of understanding of the relationship between teacher learning and work may have the direst impact in our most challenging environments—urban high schools. Students in urban schools, too often, are taught by novice teachers with emergency certifications or by experienced teachers who have systematically been deprived of professional learning opportunities throughout their careers (Darling-Hammond, 1995). Eliminating the "inequality of knowledge" (Darling-Hammond, 1995) for urban students requires, in part, providing urban teachers work environments that support and promote professional development that leads to improved practice and student learning. Furthermore, successful investments in urban teacher learning will have to account for work environments that are distinct from their suburban and rural peers (Bey & King, 1995; Seashore-Louis & Miles, 1990). For instance, urban school educators face a wider array of developmental, skill, cultural, and environmental (e.g. legal constraints, special interest groups, etc.) diversity than teachers in non-urban areas (Seashore-Louis & Miles, 1990).

Conceptual Organizers

This study focuses on two inherently linked concepts: professional learning and the context of teacher work. The relationship between the two concepts are best described by Eraut (1994):

> The functional relevance of a piece of theoretical knowledge depends less on its presumed validity than on the ability and willingness of people to use it. This is mainly determined by individual professionals and their work context, but is also affected by the

way in which the knowledge is introduced and linked to their ongoing professional concerns (p. 43).

In other words, professional learning, which should be delivered in ways that encourage future use, often occurs independent and irrespective of the intended context of use. Furthermore, while an important and omnipresent part of teaching, work context, and its influence on teacher activities and behaviors, has often been overlooked by education reformers (Darling-Hammond, 1998; Jackson, 1968; Johnson, 1990). For these reasons, the study seeks to contribute to Eraut's (1994) observation that

> Very little is known about how in-service teachers learn, and to what extent continuing *on-the-job or even off-the-job* learning contributes to their professional maturation, updating, promotion, or reorientation. Yet without such knowledge, attempts to plan or evaluate professional education are liable to be crude and misdirected (p. 40, emphasis added).

Although this study grounds work context and professional learning in the experiences of teachers, extant literature serves to define the general parameters of work context and its relationship to professional learning.

Work context is not one-dimensional; rather, it is multi-dimensional and varied. Teachers, for instance, learn and work in different contexts. Eraut distinguishes between three contexts—academic, school, and classroom—and describes their relation to professional learning. The academic context is found in all professions. Academic contexts typically generate theoretical knowledge that is communicated through specialized language. For teachers this knowledge includes theory on curriculum development, subject matter, and learning acquired during, for example, teacher preparation programs or graduate courses. School context

is the organizational environment unique to teachers and other school stakeholders. This context generates knowledge that socializes members to the existing organizational norms through such vehicles as policies and procedures that guide member conduct and organizational directions.

The third and predominant context for teachers, the classroom, is characterized by Eraut (1994) as *hot action*—that is, work environments where teachers must decide courses of action quickly with minimal time to reflect on past knowledge or memory and in a profession/craft filled with ambiguity and uncertainty. Unlike "cooler" action experienced by other professionals, the "here-and-now urgency" (Jackson, 1968, p.119) and spontaneous quality of classroom teaching has important consequences for acquisition and use of professional knowledge. Specifically, teachers operating in hot action contexts rely proportionately more on personal knowledge—i.e., knowledge acquired through experience, often in isolation, and routinized into tacit behaviors. As a result, these hot action contexts make the immediate transferability of propositional (i.e., theoretical) or procedural (i.e., technical) knowledge—the types of knowledge generated in academic and school contexts—difficult and therefore unlikely.

As Wilson (1993) noted, "learning and knowing are integrally and inherently situated in the everyday world of human activity" (p. 71). Put differently, the ability to acquire and use knowledge are highly dependent upon context. That is, for knowledge to be acquired it must be used in some form, thus becoming a part of the user. However, while learning is inextricably linked to context, "using an idea in one context does not enable it to be used in another context without considerable further learning taking place" (Eraut, 1994, p. 33). One means of increasing the transferability of knowledge across contexts is use. As the knowledge is used it changes further, becoming increasingly personalized. "Personal knowledge is significantly shaped by the context in which it has been and is intended to be used, and transfer of knowledge

between contexts is limited by the different forms in which that knowledge has to be present in order to be usable" (Eraut, 1994, p. 26).

Broudy, Smith, & Burnett (1964) describe knowledge use along a continuum, with replicative and applicative knowledge at the low end and interpretive and associative at the higher end. Replicative uses of knowledge are often associated with knowledge received didactically and assessed rotely. Application occurs when knowledge is used in "circumstances at all different from those previously encountered" (Eraut, 1994, p. 48). Interpretative uses of knowledge suggest that learners have achieved a level of understanding and judgment founded on "a wealth of professional experience" (Eraut, 1994, p. 49). However, interpretive knowledge typically accumulates unreflectively, limiting its usefulness across contexts. Finally, associative modes of knowledge use reflect a intuitive understanding resulting from the distillation of experience and the ability "to select from it those ideas or procedures that seeming fitting or appropriate" to other contexts (p. 49). Associative uses of knowledge often manifest themselves metaphorically or analogously.

Design

This study was conducted using a multiple-site, embedded case study design with three levels of analysis. Because the primary objective of the study was to understand teachers' perspectives on their own professional development, the primary unit of analysis was high school teachers. Teachers were "embedded" in two obvious cases—high schools and school district—secondary and tertiary units of analysis, respectively. Using a grounded theory approach to data collection and analysis, I relied primarily on interview data, while using observations and documents to corroborate and challenge themes emerging from interview data. Data were analyzed using the constant comparative method.

Participant and Event Selection

Given the exploratory and inductive nature of this study, theoretical sampling of participants was achieved using snowball and purposive sampling techniques (Bogdan & Biklen, 1992). Initially, academic teachers were selected based on reputation for excellence in teaching as defined by school principals. Excellent teachers were selected to maximize potential for understanding how the relationship between work context and professional development contributes to or detracts from excellent teaching. (Academic teachers were chosen because the standard measure of student achievement upon which most curriculum and school improvement reforms are based rely on achievement outcomes in core subject areas). Selected teachers were then asked to identify five peers believed to be excellent teachers until interviewee lists became redundant. Academic teachers consistently appearing on principal and peer lists were interviewed. Subsequent rounds of teacher interviews were guided by theoretical sampling based on other characteristics, such as career stage and content area (e.g., vocational and Title I areas), to ensure development of a meaningful substantive theory (Strauss & Corbin, 1990).

All school principals and other administrators whose responsibilities involved overseeing teacher professional development activities were interviewed. Administrator interviews assisted in understanding school and district settings and goals. Forty-five teachers and 7 school administrators were interviewed.

Finally, I observed 12 professional development events and faculty meetings. Formal professional development events were selected to gain insight into the nature and focus of planned activities at both school and district levels. Nine inservice days were observed, three at each school. Three district-wide professional development conferences to support the district's reform agenda were also observed. Two of the district events were two-day conferences.

Site Selection

Sustained access and potential richness of experiences were the primary criteria for selecting the district and case schools. Similar to other urban school districts, Lakeland School District faces a declining economic base. The district serves over 100,000 students—one sixth of the city's population—in over 150 schools. The racial and ethnic make up of the school district is: 59% African American, 24% White, 11% Latino, 4% Asian American, and 1% Native American. Approximately 65% of the district's students qualify for the free lunch program.

Lakeview High School consists of approximately 1470 students. Fifty percent of the students are African American, 30% White, 15% Latino, 4% Asian, and 1% Native American. Fifty-six percent of the students qualify for the free lunch program. The school's student mobility rate is 19% and the annual dropout rate is 5%. Central High School has approximately 1655 students. Seventy-four percent of the students are African American, 10% White, 9% Asian, 5% Latino, and 1% Native American. Seventy-four percent of the students qualify for the free lunch program. The mobility rate is 34% and the annual dropout rate is 10%. City High School has approximately 870 students. Forty-eight percent of the students are White, 43% African American, 6% Latino, 1% Asian, and 1% Native American. Forty-five percent of the students qualify for the free lunch program. The mobility rate is 14% and the annual dropout rate is 5%.

Data Collection

In order to gain insight into teachers' perspectives on their learning and work experiences, in-depth, semi-structured, and open-ended interviews were used as the dominant strategy to capture phenomena in teachers' own words (Bogdan & Biklen, 1990). Interviews were developed and continuously honed to ensure rich descriptions of issues relevant to the study

(Glesne & Peshkin, 1992). Interviews ranged from 30 minutes to two hours, were audio recorded, and transcribed verbatim. Observations of professional development activities provided insight into teachers' formal learning experiences, and school and district agendas for reform and professional development. Observations were conducted unobtrusively to understand "the research setting, its participants and their behavior" (Glesne & Peshkin, 1992, p. 42). Finally, documents such as school improvement plans and district professional development documents corroborated, refuted, or enriched evidence gleaned from other sources (Yin, 1994).

Data Analysis

Data were analyzed using the constant comparative method, an inductive approach that "blends systematic data collection, coding, and analysis with theoretical sampling into a comprehensive research strategy" (Haworth & Conrad, 1997, p. 221). Glaser and Strauss (1967) discuss the constant comparative method in terms of four stages: (1) the comparison of incidents by categories; (2) the integration of categories; (3) the delimitation of the theory; and (4) the writing of the theory. While not a strictly linear process, textual data were analyzed using open, axial, and selective coding (Strauss & Corbin, 1990). During open coding, data were "fractured" into provisional categories representing emerging sub-phenomena that shed light on the nature of teacher learning and work. Properties (i.e., sub-categories) and their dimensions gave depth and meaning to the categories. Data were then "re-assembled" using axial coding techniques whereby categories and sub-categories were continuously compared to challenge and strengthen emerging categorical relationships. The final stage, selective coding, involved determining the core category and describing its relation to the other categories.

Category formulation was guided by a "20 percent" decision rule in which categories were provisionally accepted when like clusters of data represented at least 20 percent of teachers

interviewed. While categories served as an artificial device to present data, emerging categories often overlapped, reflecting the depth and complexity of the relationships studied. To further ensure trustworthiness of data interpretations I provided key informants opportunities to review analytic categories at various points during data analysis and writing. Finally, to facilitate analysis of interview data and field notes, QSR NUD.IST, a qualitative data analysis software package, was used to manage data throughout the study.

Findings

What Motivates Teachers to Learn

Research suggests that adult learners are goal-oriented, activity-oriented, and or learning-oriented (Houle, 1961). In addition, adults are motivated by an array of intrinsic and extrinsic motivating factors (Morstain & Smart, 1974). However, existing research does little to clarify why professionals engage in learning activities. This study identified four intrinsic and two extrinsic factors that motivated teachers to learn.

Intrinsic motivating factors

Intrinsically motivated, teachers across schools engaged in learning activities to address (1) content knowledge needs, (2) pedagogical skill deficits, (3) challenges to classroom management, and (4) gaps in student-centered knowledge. To a lesser extent teachers described a sense of moral obligation and personal interests as reasons to engage in professional learning activities.

Not surprisingly, these secondary teachers were motivated to acquire content-related knowledge more than any other intrinsic motivating factors. Their motivation focused on increasing depth of knowledge in their content areas and or broadening their knowledge into

other disciplines. One veteran teacher captured the significance that keeping up with content knowledge had for himself and his peers:

> In this on-going debate between methodology versus content I've always come down on the side of content. I think I know how to teach; I know how to relate to these kids....The next question is do you know what you're talking about? Do you like it? Can you convey that to the kids? I don't think there is any other way to define professional development except learning more about what you profess to know something about.

In terms of pedagogical skills, teachers focused primarily on acquiring procedural knowledge directly applicable to practice. In other words, teachers concentrated much of their learning on acquiring "tricks of the trade" or "nuggets of knowledge" that were immediately applicable to their classroom contexts. Teachers were much less likely to describe critical examinations of current pedagogical practices as a reason for engaging in learning activities. One teacher's comment illustrates teachers' preoccupation with acquiring "nuggets" of knowledge. "Nuggets. That's all you need. If I got five ideas for my teaching from each workshop that I went to, how long would it take in my teaching career until I had the best that I could do for each class period?"

Frustrated by the constant challenge to maintain discipline and safety in their schools, teachers often sought to acquire more appropriate and effective classroom management skills. Teachers attributed classroom management challenges to the increasing disparity in student learning abilities and social dilemmas such as drug abuse, teenage pregnancy, gangs, and lack of parental support. Consequently, teachers sought to explore, in-depth, these student-centered issues. As one teacher described, "I'm frustrated about discipline. If I were to hear of [a

professional development activity] that was really good for classroom management I would try that." The moral obligation to "keep up" professionally, as expressed by the following teacher, was born out of a commitment to students and profession. This veteran teacher described her concern, a concern expressed by teachers at each school. "I am distressed at the lack of achievement and motivation for many of our students. I keep looking for articles, I keep looking for workshops, for books to find out who is doing what and who's succeeding at working with the students population that we're dealing with here." Finally, teachers, especially experienced ones, were often motivated by opportunities to acquire knowledge applicable to their personal lives. In these cases, teachers described participation in formal, technology-oriented professional development workshops as a means of acquiring knowledge useful to both classroom practice and personal lives.

Extrinsic motivating factors

Teachers engaged in professional development activities in response to two primary extrinsic factors, remuneration and licensure requirements. While monetary incentives played an important role in influencing teachers' participation in professional development, teachers at various career stages weighed the opportunity costs of participation differently. A second year teacher reflected the thinking of other novice interviewees: "Saturday inservices are paid....That's the district's or school's investment in us. There are teachers who don't take advantage of those [inservices] because they have reached a point where their time is worth more than the money. I'm not at that point yet. I can still use the money." As this comment suggests some teachers, especially those at the top of the pay scale, avoided spending additional time during the school year to participate in formal professional development activities.

State licensure requirements were a significant motivation, but like remuneration, licensure requirements do not ensure teacher engagement in learning activities. As one teacher noted, "It's strange. I can take courses that have nothing to do with English and get my license renewed....I don't see how that makes you a better teacher."

These patterns of intrinsic and extrinsic motivation to engage in professional development activities repeated themselves across all three schools. Perhaps reflecting secondary educator attachment to their discipline areas, teachers were primarily motivated by the need to focus on content. While licensure requirements affected all teachers, remuneration lost its persuasive power as teachers moved up the salary scale.

Ways Teachers Learn

Research on teacher professional development is replete with accounts of staff development programs with little long-term impact (e.g., Fullan 1990; Stallings & Krasavage 1986). As these data show, this may be due to the fact that teachers most rely on collaboration to flesh out daily professional challenges, which is not typically built into formal professional development programs. Teachers experienced professional development broadly and through numerous activities, including: collaboration, individual inquiry, experiential learning, conferences workshops, school-based inservices, and graduate courses. The general focus of learning activities was on content, pedagogy, classroom management, educational reform, and social factors associated with the urban context.

As Table 1 shows, data suggested that teachers utilized certain types of activities to focus on particular aspects of professional practice. For instance, collaboration was an activity favored (but not necessarily used) for a wide range of purposes. On the other hand, from these teachers' perspectives workshops, inservices, and graduate study served much narrower ends.

*****Insert Table 1*****

Teacher collaboration

As the table shows, given the opportunity to collaborate, teachers tended to focus learning on two areas: (1) developing classroom management strategies, and (2) developing, improving, and affirming pedagogical skills. To a lesser degree, teachers collaborated on developing content knowledge, discussing the social factors of the urban context, or education reform or theory. However, while teachers described collaboration as a critical learning activity through which to share teaching tips and content knowledge, discuss social factors related to the urban context, and trade classroom management strategies, noticeably absent from these interactions were descriptions of reflective discussions examining teacher practice. For instance, one teacher's comments illustrates the nature of these exchanges:

> I've learned that what impacts my job most is learning little tips from other teachers. For example, a parent says, "If you're having a problem call me at home." You hear that over and over. A teacher one year gave me a tip, "Don't let them say that to you. What you should say is, 'Here's my telephone number; you call me.' Because if they really care they will call you and then the burden is not on you."

While meaningful collaboration was rare, teachers perceived in-school collaboration as a potentially rich source of contextually-relevant knowledge affecting a range of professional activities. Teachers relied greatly on what might be described as serendipitous collaboration with peers. Data show that teachers' collaborative interactions tended to be dialogues in which practical solutions to teaching challenges were sought. A mid-career math teacher described informal collaboration with a department colleague:

My counterpart in math and I had been teaching the regular geometry course....We shared duties. On Sundays for the last two years he would come over to my house and we would prep for two or three hours. We would discuss problems and hammer them out....We had an opportunity to share ideas, to discuss curriculum, to work things out.

While the above comment reflects the power of collaboration as a learning activity, it also underscores the manner in which collaboration is often squeezed to margins of teachers' work lives.

Individual inquiry and job experience

Conducting individual inquiry was a powerful learning activity for teachers. Relying on their own efforts, teachers often addressed professional concerns through reading and research. Teachers favored a variety of sources including practitioner journals, popular magazines, newspapers, and popular and classic literature. Individual inquiry was predominantly focused on developing depth and breadth of content knowledge (see Table 1). For example, data suggested that teachers engaged in professionally-focused reading activities to develop a foundation of content knowledge. A first year science teacher stated, "I didn't know the content, which was one of the things that you experience. 'How am I going to remember this biology and physical science?' So you're just re-reading a lot of this stuff on your own." Other teachers, often those with more experience, focused their inquiry on deepening and strengthening an existing knowledge base. Another teacher said, "If I've had a terrible day I'll go home to my bookshelf, and I'll get out my behavior books. If I'm not sure what I want to do in my literature class, I'll get out my Norton Anthology and just start looking."

In addition, one of the most pervasive—yet difficult to describe—learning "activities" was professional experience. More than other strategies, teachers relied on experience as the

primary source of knowledge and understanding about students' lives and diverse cultures. The cornerstone of experiential learning was classroom experience, although community and personal experiences also informed practice. In the classroom, teachers described learning through a gradual process of trial and error. An experienced English teacher described how knowing content and the lives of her urban students has made her more effective of the years:

> I think my success comes from having gone through the material twenty times and having lived myself....Looking at my students' lives, knowing more clearly what they go through. Sometimes it's awfully tough for them to walk into this class and think Shakespeare's Macbeth is more important than what just happened in their house. Bridging the gap, knowing who is sitting in front of you, and being clear to yourself that the material is worth knowing. I try to give them some kind of guarantee that...if they work, they can be successful.

Community experience also helped some teachers understand their students' diverse cultures as well as the daily challenges and distractions of urban life. Another English teacher described how summer visits to students' homes was a learning experience. "These home visits have really been great for me....Not that I wasn't able to empathize with students before, but now when they say, 'I don't have a pencil,' it's amazing to me that they can even get here."

Formal professional development activities

Formal learning activities were dominated by workshops, conferences and school-sponsored inservices, and university courses. According to these teachers, workshops and conferences, defined as professional learning activities sponsored at the district, state, or national levels, focused predominantly on issues of content and pedagogy. Contradicting well-known downfalls of short-term workshops, teachers valued workshops and conferences for specific

reasons. Teachers viewed these learning venues as a means of circumventing their professional isolation. As one teacher said, "I meet people at conferences. These people are contacts to learning new, innovative ways to teach." Teachers also found listening to experts useful as long as the ideas were intellectually challenging and relevant to their unique contexts.

Finally, teachers discussed benefits and drawbacks of continuing graduate education. Though teachers at all career stages had used this strategy at some point, by and large, university level learning was a strategy practiced by novice and mid-career teachers. Graduate coursework focused primarily on content area. In fact, most teachers preferred university courses based in academic disciplines to education courses. Ironically, several teachers contradicted a general preference for local expert knowledge, by emphasizing the value of discipline-based expert knowledge—perhaps reflecting teachers' perceived dichotomy between the realms of content knowledge and pedagogical knowledge. Interestingly, some teachers expressed a frustration with approaches to graduate learning that favored constructivist approaches to learning. For instance, one teacher said, "I came [to class] to learn from the professor. The professor is the expert, not the students. I want to hear his ideas, not the students."

Work Context Factors that Influence Teacher Learning

Data to this point have shown that teachers are motivated to learn by needs and challenges in areas of content, pedagogy, classroom management, social issues affecting students, and remunerative and contractual incentives. Furthermore, teachers report that multiple learning activities can be used to address their learning needs—some better than others (see Table 1). This leads us to a discussion of the work factors that influence teacher learning. School level factors—leadership, organization and allocation of resources, and faculty norms—played significant roles in determining the quality of and access to professional learning

activities and influencing teacher perceptions of professional learning. While school level factors varied across organizations, each school experienced some combination of the three school level factors. At the district level, district reform agendas and professional development priorities often minimized teacher autonomy in professional learning.

School level factors

Across schools, teachers described leadership as a factor that influenced access to, and the nature of, learning opportunities. While leadership styles differed across schools, approaches and philosophies toward professional development reflected the inherent tension between organizational imperatives and individual learning goals. This tension was often manifested at the school level during inservice days. Observational data suggest that each principal approached inservice days differently. The struggle to balance the principal's desire to direct organizational change and the learning needs of individual teachers was acutely apparent at Lakeview High School. Ostensibly, the intent of Lakeview leadership was to allow teachers to determine professional development content. However, during field observations, the school leadership's desire to implement block scheduling co-opted the professional development program during inservice days. In fact, while Lakeview administrators' rhetoric suggested that teachers defined the purpose and content of professional development, teachers perceived a lack of control and autonomy over professional learning decisions. One teacher described his perspective which was shared by other teachers, "I'd say the principal has tried to encourage people to get professional development to a fault. Pushing them into areas they don't want to be pushed into."

Central High School's leadership appeared to have struck a balance between organizational imperatives and faculty learning needs. Through a process of communication and

compromise. Central's principal established a culture of experimentation and risk-taking by embedding professional learning into faculty work. Several teachers stated that while Central's administration often took a hands-on approach to teacher professional development, teacher and administrator professional learning goals were aligned. A Central teacher described this alignment:

> Who decides [professional development priorities] is probably the administrator, but it is based realistically on where we are moving. A few years ago we became a site-based managed school. To get people focused on making their own decisions, rather then letting somebody else make it for them, we held inservices on team-building. That grew out of the need.

Central High's principal emphasized the important role of local expert knowledge in her vision of teacher professional development. Through grade level teams and subtle changes to the organization of teacher work, a culture has emerged in which formal and informal professional learning activities are embedded in teacher work. One teacher described how professional development is approached at Central, "When we have inservice days we often draw from the expertise in the building. On a couple of occasions I've done inservices....We have a very talented staff who know a lot of valuable skills and techniques that they can pass on."

Finally, communication among teachers in the same department has been enhanced at Central due to the reconfiguration of teacher work space. Teachers now have their permanent desks in departmental offices along with their colleagues. Several Central teachers remarked that a culture of sharing and collaboration around issues of teaching and learning has begun to take root.

The leadership experience at City High School illustrates the effect that leader succession has on professional learning. Principal turnover at City has occurred every two or three years for the past 25 years—including the year this study began. While City's leadership has shown signs of establishing a collaborative work environment premised on mutual respect, most teachers have not yet noticed any changes, nor have they experienced professional learning in a coherent fashion. As one teacher stated, "I suppose the school has played a role, but it's so subliminal that I wouldn't have noticed. They let us go to workshops."

Across schools, opportunities for teacher professional development were dependent upon patterns of resource allocation, especially time and money. Teachers constantly faced the opportunity costs of addressing one learning need at the expense of another. In these urban schools, this decision-making process often meant that issues critical to enhancing the learning of diverse groups of students, ensuring safe learning environments, and connecting with community social service entities were displaced by learning activities that served more than one purpose—i.e., attending activities that provided credit toward licensure or salary increases. Thus, the lack of discretionary time for teacher learning privileged credit yielding learning opportunities. Most notably, conducting individual inquiry, while valued, was difficult as this teacher mentioned, "Journals are good. I wouldn't say I actually read them. I do look through them and occasionally have time to sit down and read an article, but it's hard to find the time."

While the organization of teacher time made individual inquiry and collaboration—highly valued learning activities—difficult to conduct, teachers did find ways to meet their needs, albeit sporadically. For example, some teachers found it easier to collaborate with teachers outside the school, as this English teacher described:

> In some cases I would never pick a book unless it worked well for someone else. That's the only way you can get beyond your own borders—people from outside bring you ideas. Those are good sharing sessions, especially with teachers from other districts that have similar student populations, or people within the district who you just don't get a chance to see, and occasionally teachers from your own school because the way our school day is mapped out we don't have time to talk to each other.

These teachers described how due to lack of time, learning activities such as collaboration between teachers and reading professional materials rarely moved beyond surface level discussions or skimming of material. Finally, teachers also identified allocation of financial resources as a factor that determined the feasibility of learning activities. Despite district rhetoric of decentralized professional development funds, administrators and teachers described having few resources and little latitude to determine how professional development funds were spent.

Across schools, strong faculty norms shaped teacher attitudes and expectations of professional development. Socializing factors included teacher isolation, the physical and emotional stress of teacher work, and teacher perceptions of the impact of social factors (e.g., safety and poverty) associated with the urban context on student learning. Although formal professional development activities were privileged over informal ones, teachers described a pervasive attitude among their peers that formal professional development was ineffective. This attitude reflected a deep distrust of outside "experts" with little or no knowledge of the urban context. An experienced teacher described the socialization process this way, "They [young teachers] come in and learn the attitude—the attitude toward administration, the attitude toward

students, the attitude toward inservices. No one can tell us anything. The only person who can talk to us is another teacher."

According to teachers, isolation from peers also had an insidious effect on teacher learning by creating invisible walls between teachers and diminishing the valuable role activities such as collaboration can have in their practice. For example, at Lakeview teachers described these "walls" as relatively impenetrable. A novice Lakeview teacher stated, "It's absurd how isolated we can be if we don't make a point of talking to people....I rarely talk to other teachers." Conversely, Central High teachers described how school structure could facilitate on-going collaboration through teaming as well as subtler changes to the organization of teacher work. One teacher said

> Well, the staff here really leans on each other. Although sometimes you feel isolated being a high school teacher, we have a lot of common offices that we can share, especially on a Saturday if you're with colleagues you have a lot of sharing that can go on. We meet together as a department at least once a month and we do talk curricular issues.

Thus, the structure of schools influenced teacher learning by either limiting or expanding possible avenues of professional learning. Instead of seeking out meaningful collaborative interaction, many teachers relied more on formal delivery mechanisms such as inservices, workshops, or conferences that, while sometimes useful for general knowledge acquisition, did little to help teachers answer specific concerns related to particular contexts.

Finally, the hectic pace of high school teaching and such stressors as maintaining safe environments for students and staff left teachers weary and often unwilling to participate in learning activities after school or on weekends. Instead, many teachers discussed their need to

balance work and personal lives. Most teachers preferred to spend the little time left over after days in school and nights of "prep time," at home with their families—not participating in professional development.

District level factors

Teachers associated two district factors with their work context: district policy reforms and district professional development priorities. The implementation of proficiency exams and a new school-to-work initiative exemplified the disconnect (from teacher perspectives) between district reform priorities and individual learning needs. For example, while teachers did not reject proficiency exams, they resented the (perceived) unilateral manner in which the decision was made. One teacher reflected her peers' frustration:

> The math proficiency test is a complete mess....The year before last was the first time they did it. The kids weren't ready for it, the teachers weren't ready for it. It was a different kind of question than you saw in most math classrooms. Is it something the kids should be able to answer? Yes. Was it fair to do it like that? No.

The district's School-to-Work initiative offered a glimpse of how school level and district level factors interact to affect teacher learning. As part of the School-to-Work initiative, the district created extensive professional development opportunities such as district-wide conventions and travel opportunities to conferences in which teachers could earn continuing education credit hours. Observations and interview data suggested that teachers working in teams were able to synthesize knowledge acquired at conferences and integrate that knowledge into their practice with more success than their peers who worked alone. For example, one of four teamed-teachers at Central High School described the learning process this way, "[The district has] had summer school-to-work conferences and several things during the school year.

Everyday we [the team] continue to meet and we struggle with what we're doing. As a school we meet once every couple of months and share what each team is doing....That has been a help."

Despite its reform agenda, the prevailing attitude among teachers across schools remains that the district's impact on their professional development was minimal because district-sponsored activities did not address critical issues. For instance, a City High teacher commented, "The district talks about the importance of [professional development], but basically I don't think their role is major at all. The district does have staff development activities, and they have a catalog of offerings. But I don't think those things necessarily address specific problems that teachers have."

Conclusion

In response to calls for a greater understanding of the nature of teacher professional development (NCTAF, 1996; NFIE, 1996; Lieberman, 1995), this study underscores the critical role of teachers' work context as a factor that influences how and what teachers learn as professionals. These data suggest that if we expect teachers to use new knowledge in ways that enable changes in practice required by current reform agendas, then more attention must be paid to (1) the multiple contexts that define teacher work; (2) the types of teacher learning activities (and thus knowledge) that are privileged in different contexts; and (3) the consequences that engaging in certain learning activities have on the types of knowledge acquired and used in practice. Based on this exploratory study, there are important implications for theory development, practice, and future research.

Work Context and Professional Learning: A Conceptual Framework

The contexts in which teachers work and learn are multiple, varied, and nested. That the predominant context of teacher work is the classroom, is not new (Lortie, 1975; Jackson, 1968). Nor is it novel that the structure of schooling and hectic pace of teaching have important implications for all facets of teachers' professional lives (Johnson, 1990; Rosenholtz, 1989). However, this study deepens our understanding of various contexts of teacher work and their influences on teacher learning by describing the interrelationships between three major conceptual categories: context, learning activities, motivation to engage in learning. Figure 1 provides a graphical representation of their interrelationship.

****Insert Figure 1 here****

Eraut's (1994) academic, school, and classroom contexts serve as a useful way to describe the "nested-ness" of teacher work contexts and the influence of these contexts on professional learning. University courses, one of the most efficient means for teachers to comply with licensure requirements, diffused propositional knowledge with little application to practice or relevance to the urban high school context. For example, teachers learned in academic contexts, like university courses, where knowledge tended to be theoretically-based and relatively distant from the pressures of the classroom. Therefore, in spite of the efficiency with which they could meet continuing education requirements, teachers often had difficulty translating knowledge acquired in "academic" settings into practice.

Data from this study supported Eraut's notion of "school" as a context that influenced teacher learning. However, beyond school, multiple and nested organizational contexts helped define teacher work. The salient organizational contexts in this study included departments, the school, district, and state. At the departmental level, attempts at same-subject collaboration often

led to informal learning opportunities. Within school context, professional learning was necessarily limited to organizational priorities. For example, alternative ways of organizing time and space of teacher work at Central High School fostered informal learning via collaboration both within and between grade levels. For the most part, however, teachers in these case study schools experienced learning primarily through limited and formal professional development activities with little impact on teacher practice. In large part, current configurations of professional development continue to privilege the acquisition of types of knowledge favored in school, academic, and policy contexts as opposed to the "hot" action of classroom realities. For example, the foci of school inservices was often on district or state reform agendas and not necessarily individual teacher needs. Coupled with school level factors, district and state policies further privileged formal learning activities over other, less traditional forms of professional development. District salary schedules, district and state reform initiatives, and state licensure requirements, all influenced teacher decisions regarding professional development. Pressed for time and driven by the need to accrue continuing education credits to renew a license or advance up the salary scale, teachers focused on learning activities that they viewed as ineffective.

Myriad intrinsic and extrinsic factors motivated teachers to engage in learning activities. Not surprisingly, teachers were motivated extrinsically by the desire to enhance their earning power and by the contractual obligations at district and state levels. Intrinsically, teachers were motivated by desires to address immediate classroom challenges such as developing new teaching methods, effectively managing classroom discipline, or expanding content knowledge. In spite of factors that motivated teachers to learn, facets of work context acted as filters privileging some learning activities while limiting others. At the school level the focus of

teacher professional development was driven by school and/or district agendas—i.e., the individual versus organizational learning dilemma—with teacher decision-making authority concerning professional learning occurring within the parameters of those agendas. For example, administrative pressures for efficiency in operations limited funding allocated to professional development and favored traditional approaches to professional development over more costly professional development activities often favored by teachers (e.g., in school collaboration or time for individual inquiry).

Furthermore, the learning activities available to teachers held sway over the types of knowledge acquired by teachers. For instance, within the contexts of school buildings and classrooms, lack of time and teacher isolation seriously impeded teachers' abilities to engage in learning activities (e.g., collaboration, observation, and individual inquiry) that are effective at transferring procedural, i.e., "how to," and experiential knowledge that teachers favor for addressing immediate and specific problems of practice. Perhaps the most critical consequence of these contextual influences on learning activities (and thus knowledge acquired) was the inability of teachers to discuss student-related issues with their colleagues. For example, in these large urban high schools where diversity in race, ethnicity, learning style, and so on were the norm, teachers favored collaboration as a means of meeting student needs. However, due to the manner in which most teachers' work was organized, collaboration was problematic.

Teachers rarely discussed learning experiences that addressed the "here-and-now-urgency" of the predominant context of their professional work lives—the "hot" action of the classroom. These examples illustrate how the lack of articulation between contexts can press teachers into learning situations that leave teachers ill-equipped to transform knowledge ostensibly aimed at addressing classroom problems in one context, into practical solutions in

another. While teachers valued brief and infrequent peer interactions or opportunities to skim practitioner journals, the lack of integration of learning and work severely curbed opportunities for the types of activities that require examination of values, beliefs, theories, and assumptions inherent in the ways teachers approach students, learning, and their profession in general.

Implications for Practice and Policy

Emerging notions of what teachers should know and do range from gaining a deeper understanding of content, to understanding how diverse students learn, to acquiring pedagogical skills congruent with new approaches to teaching and learning. However, the educational changes being asked of teachers require more than acquisition of new skills, behaviors, or knowledge. Furthermore, delivery mechanisms such as teacher networks, professional development schools, and school-community partnerships represent only one piece of the solution. While important and useful, these approaches assist only a fraction of teachers nationally and do little to alleviate the nested contextual barriers to learning that teachers—especially urban teachers—face. For successful change to occur, teachers must come to understand and believe in the efficacy of those changes (Fullan, 1993). By considering the implications that varying facets of work context have for professional learning, education leaders at various levels can strengthen professional learning capacity at the school and classroom levels.

At the school level, professional learning must be embedded in the culture of schools. Creating school cultures that value professional learning will require school leaders to initiate changes that place professional development at the core of teacher work to ingrain the value of continuous professional learning throughout teachers' careers. Fullan (1995) believes that professional development must serve as a vehicle for reform. One path is to create school environments that support informal and formal professional learning activities. As Fullan (1993)

states, "the key to success lies in the creative activity of making new maps" (p. 25). If we first try to convince teachers of the value of continuous professional learning, we may not be able to overcome the negative images of more layers of work. In other words, transforming school cultures will not be a linear process. It will be iterative as teachers and administrators negotiate how professional development can best support teachers and the students they serve.

Some effective activities observed in this study included organizing the school day into 90 minute blocks, thus creating time when groups of teachers (organized in a variety of ways) can engage in numerous non-traditional learning activities. These learning activities could include individual inquiry in support of group needs and meaningful action research projects made possible by planned time in teachers' work days. In addition, as Schein (1992) describes in his work on organizational culture, physical arrangement of teacher work space—e.g., the removal of teacher desks from classrooms to departmental offices at Central High School—can also foster cultures that support professional learning. Another a symbol that professional learning is valued, is to utilize the within-school expertise as one vehicle for delivering new knowledge. Teachers working in the same context as their peers are much more likely to address critical teacher needs, and peers are much more willing to listen. Finally, school leaders must defend teachers' rights to professional learning opportunities and protect scheduled professional development time from its usurpation by organizational imperatives. If improved student learning is the goal, teacher learning must be more than one dimensional and include learning opportunities that occur during school hours and between colleagues to establish a culture of learning that will lead to increased levels of trust and tolerance of risk-taking behavior.

At the district and state levels, more attention must be paid to recognizing and rewarding less traditional, but important, teacher learning activities such as collaboration and inquiry. As

this study shows, extrinsic motivators such as opportunities to advance on the salary schedule and licensure requirements channel teachers into primarily traditional professional development activities, usually developed outside the school context, and often only loosely connected with teachers' classroom contexts. These formal approaches do little to help reculture schools into the continuous learning organizations required to make 1990s reforms successful.

Finally, university education programs must continue to move in instructional directions that bridge academic knowledge and the needs of teachers and administrators. This might be approached in two ways. For practicing teachers, knowledge acquisition in academic contexts should be constructed by teachers and their instructors to ensure the academy's assumptions of what is important to know do not impede the application of that knowledge in ways that improves practice and student learning. Second, inservices and leadership programs for practicing administrators should focus more attention on understanding the implications of the inherent conflict between individual professional learning needs and organizational exigencies for their schools. By understanding how professionals learn in different contexts and use knowledge across contexts, school leaders will be in a better position to create institutional arrangements that support continuous professional learning.

Limitations and Future Directions

The study was exploratory and as such has several limitations. First, to enhance theory-building power, I chose to look at teachers in three high schools in one urban district. At this juncture it is not possible to say that the experiences described by these teachers translate across settings. Second, the population—"good" teachers—was also chosen to enhance theory-building power. As an initial foray into this conceptual area, I wanted to understand how effective

teachers negotiated their environments in relation to their own learning. As a result, this approach does not yield insights into the experiences of other teacher groups.

Future research can address these limitations and expand our understanding of the relationship between learning and work in several ways. To wit, future studies should focus on suburban and rural settings and various levels of the K-12 education system. In addition, research using different teacher groupings (e.g., stratified random samples, differing efficacy levels, levels of experience) to study the relationship would further enrich this line of research. Furthermore, this study underscores the need to better understand the influence of state, district, union, and school policies on teacher learning. Finally, while other studies have examined general patterns of professional development costs, future research determining the direct and indirect costs of holistic approaches to professional development would be informative to policy-makers and school administrators.

Summary

At the beginning of the article I cited works that wondered why teachers were passive victims of traditional professional development programs (Johnson, 1990), argued that professional development should be a vehicle for reform (Corcoran, 1995; Fullan, 1995), and called for a better understanding of teacher learning experiences (Lieberman, 1995). This study of teacher learning experiences in three urban high schools shows that teachers experience professional development broadly. "Passivity" toward learning might be overstated. Instead, given the influence of the nested contexts discussed here, teachers respond to contractual obligations for professional updating, on the one hand, while acquiring immediately useful "tricks of the trade" as they move through their work days. To overcome this stilted approach to learning, professional development will need to be conceptualized as more than a vehicle for

reform. Rather, professional development must be considered a reform in and of itself; that is, professional development must become an integral part of teacher work and the culture of schools.

Appendix

Teacher Interview Protocol	Administrator Interview Protocol

• Provide an overview of your teaching career?
• What other activities are you called on to perform?
• How do you keep current in your practice?
• What types of things are the focus or your learning?
• In terms of your teaching, what do you do best?
  • How did you develop these skills?
• Describe any defining moments in your career where you acquired important knowledge about what you do?
• Describe a typical day in your work life?
  • How do those things affect your opportunities to learn?
• What factors differentiate between worthwhile professional development activities and those that are not?
• What role to the following people or organizations play in your professional development? Principal, other teachers, school district personnel, teacher unions, professional associations, others.
• What activities outside school contribute to or detract from your learning?
• How would you define professional learning?
	• Please describe what you believe are the primary goals of this school.
	• What major challenges face the school?
	• Describe the type and range of professional development activities that occur at this school.
	  • What is the purpose or rationale of these activities?
	• How are decisions made concerning the content and organization of professional development activities?
	• What is your philosophy of professional development?
	• How does the school identify and address individual teacher needs?

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Table 1: Teacher perceptions of utility of various learning activities

	Content	Pedagogy	Classroom Management	Social Factors	Reform	Theory
Collaboration	◗	●	●	◗	◗	☽
Individual Inquiry	●	◗	☽	☽	☽	☽
Experience	☽	◗	☽	●	☽	☽
Workshops/ conferences	●	●	☽	☽	◗	☽
Inservices	☽	◗	☽	☽	◗	☽
Graduate courses	◗	☽	☽	☽	☽	☽

●=High utility ◗=Moderate utility ☽=Lower utility

Figure 1: A professional development schematic